

REMARKS

This is responsive to the Office Action mailed March 26, 2010. Included is a request for continued examination (RCE) together with the required fee.

Double Patenting Rejections

Claims 9, 20, 21 and 30 - 44 continue to stand rejected on the ground of nonstatutory obviousness type double patenting as being unpatentable over claims 7 - 10 of U.S. Patent No. 6,757,952 in view of Bielagus et al., U.S. Patent No. 5,937,923 or Smith, U.S. Patent No. 6,662,837. Applicant continues to traverse the rejections.

Claim 9

Shoulder Bolts

In the section entitled “Response to Arguments,” the Office Action states that Bielagus and Smith both teach shoulder bolts. Specifically, the Office Action identifies “clamp bolts 118” in Bielagus, and “blade mount bolts 25” of Smith as being shoulder bolts. Applicant disagrees.

A shoulder bolt is a specific type of bolt, and the term has a standardized meaning. Here is the Wikipedia definition:

Shoulder screw (stripper bolt)

1. A shoulder screw differs from machine screws in that the shank is ground to a precise diameter, known as the *shoulder*, and the threaded portion is smaller in diameter than the shoulder.

The shoulder bolt (aka “shoulder screw”) has a shoulder portion with a precise diameter, and the “threaded portion” with a smaller diameter than the shoulder portion.

The Examiner had previously disagreed that the term has a known definition, and required Applicant to amend claim 9 to include a definition within the claim itself. Applicant complied, and amended claim 9 to add the following:

“each of said shoulder bolts having a head portion of a first diameter, a shoulder portion of a second diameter less than said first diameter, and a threaded portion having a third diameter less than said second diameter, each said shoulder portion being disposed between the corresponding head and threaded portions . . .”

The claimed features are illustrated in **Sketch #1** attached hereto, which shows a shoulder bolt 10 having a head portion 12, a shoulder portion 14, and a threaded portion 16. As recited in the claim, the shoulder portion 14 has a diameter that is less than the diameter of the head portion, but greater than the diameter of the threaded portion.

For comparison, **Sketch #2** shows an ordinary bolt 20, which consists of a head portion 22 and a threaded portion 26.

It can be seen by comparing **Sketches #1 and #2** that the shoulder bolt 10 is *different* from the ordinary bolt 20. Particularly, the shoulder bolt 10 *has a shoulder portion*, whereas the ordinary bolt 20 *does not have a shoulder portion*.

The Office Action asserts that the bolts 118 and 25 in Bielagus and Smith are shoulder bolts; but there is no apparent reason for making this assertion. The Office Action does not identify any shoulder portions of the bolts 118 or 25; the Office Action does not identify any text in either reference describing the bolts 118 or 25 as shoulder bolts; and Applicant does not otherwise see any indication in either the Figures or the specification of either reference that the bolts 118 or 25 are not ordinary bolts. Since the rejection of claim 9 for double patenting is based entirely on the assertion that the bolts 118 and 25 in Bielagus and Smith are specifically

shoulder bolts and therefore not ordinary bolts, and since no evidence whatsoever has been cited in support of this assertion, the rejection fails to establish a *prima facie* case.

Claims 20 and 21

The rejections of claims 20 and 21 are based on allegations that are considered below, and that, it is respectfully submitted, are shown below to be incorrect.

Section 102 Rejections

Claims 20 and 21 stand rejected under 35 U.S.C. §102(b) as being anticipated by Smith. While it is not stated in the Office Action, it appears (based on the logic and the assertions made in regard to the double patenting rejections) that the claims 20 and 21 must also be considered to be anticipated by Bielagus, and so Applicant will address the failure of either reference to teach the claimed invention.

Claim 20--Smith Reference

The Office Action asserts that an “upper clamping surface 13 and wear shoe 2a has a cooperatively interlocking portion between clamp plate flange 11 and base channel 4.” Applicant continues to disagree that 2a is a wearshoe. However, it does not matter--there is still no anticipation. First, as discussed below (under the heading “**Section 103 Rejections**,” sub-head “**Prior Art Fails to Teach Three Components**”), no matter how the reference is interpreted, it does not have all three of the following components as required by the claim: (1) an upper clamping member; (2) a base; and (3) a wearshoe. Since Smith fails to teach at least one of the claim elements, it cannot possibly anticipate the claim.

Moreover, even granting an interpretation of the term “wearshoe” that would cover the “base plate 2a” of Smith, there is still no anticipation, because the alleged “cooperatively interlocking portion” between clamp plate flange 11 and base channel 4 does not meet the express claim requirement of providing for resistance to separation of these components along an axis defined by the bolt 25 (i.e., the bolt that mounts the wearshoe to the base). Figure 6 of Smith is an exploded view that graphically demonstrates the truth of this statement. Figure 6 makes clear that the part 10 may be lifted upwardly, in the direction defined by the axis of the bolt 25, so as to move it away from the part 2a, *without encountering any resistance whatsoever* from the allegedly “interlocking” clamp plate flange 11 and base channel 4. Therefore, Smith is clear on its face that it does not provide the functionality claimed.

Simplified Sketches #3A and #3B make the point even clearer. The bolt axis is “L.” It is respectfully submitted to be abundantly clear that the structures 4 and 11 are incapable of resisting the movement of the part 10 indicated by the arrow, away from the part 2a, in the direction L.

Claim 20--Bielagus Reference

It appears from the annotated Figure 8 of Bielagus provided in the Office Action that the “clamp 116” is considered to be a wearshoe, and therefore the “drum segment 34” to be a base. Applicant continues to disagree that 116 is a wearshoe. However, it does not matter--there is still no anticipation. Even granting an interpretation of “wearshoe” that would include the clamp 116 in Bielagus, just like Smith, Bielagus does not meet the express claim requirement of providing

for resistance to separation of the components along an axis defined by the bolt that mounts the wearshoe to the base.

If the structure 116 is a wearshoe and the interfacing structure 34 (referred to as a “drum segment”) is a “base” as alleged, then the claimed bolt axis must be that of the bolts 118. It then follows by inspection of Bielagus Figure 8 that the express claim requirement noted above is not met.

Simplified Sketches #4A and #4B make this even clearer. The bolt axis is “L.” It is respectfully submitted to be abundantly clear that the structures identified as “S” in Sketch #4B are incapable of resisting the movement of the part 116 indicated by the arrow, away from the part 34, in the direction L.

Claim 21--Smith Reference

The Office Action asserts that Smith has “cooperatively ramping portions that are sloped relative to and [?] axis as seen in figure 2.” Applicant does not understand this sentence. It appears to be saying that Smith has “cooperatively ramping portions” because there is something in Smith Figure 2 that is sloped. It would then seem that, with reference to simplified Sketch #5, the Examiner must be referring to the faces indicated as “A” and “B.” However, the faces A and B bear no relationship to one another; they do not contact one another, and they do not otherwise function in cooperation to perform any function whatsoever, let alone the function claimed.

Claim 21--Bielagus Reference

Referring to the annotated Figure 8 in the Office Action, it appears that the interface, proximate the knife 44, between the part 116 and the part 34, is considered to correspond to the claimed cooperatively ramping portions. That would be incorrect.

The geometry is reproduced in the simplified **Sketch #6**, with the interface being referenced as “A.” Apparently, the interface A is considered “sloped” because it is at a non-zero (slanted) angle with respect to the horizontal. However, the claim specifically defines “sloped” as being “relative” to the axis of a bolt.

Under the assumptions made by in the Office Action, this bolt would have to be the bolt 118. The axis of the bolt 118 is shown in **Sketch #6** as “L.” It is apparent that the interface “A” is perpendicular to the axis L, and therefore it is *not* “sloped” relative to the bolt axis as defined in the claim.

It should be appreciated that, because the interface in Bielagus is not sloped as would be required by the claim, it also fails to provide the claimed function. Simplified **Sketch #7** illustrates this point. In **Sketch #7**, structure “A” corresponds to Bielagus, and structure “B” corresponds to what is claimed. It should be apparent that the part “1” in structure A does not resist sliding in one direction or the other, whereas the sloped interface (again, relative to the bolt axis) in structure B introduces a ramp that allows the part “1” to resist sliding relative to the part “2” in the direction indicated.

However, regardless of how the interface in structure B performs relative to the interface in structure A, **Sketch #7** at least makes it clear that the structures A (corresponding to Bielagus)

and B (corresponding to the claim) are *different*, so that Bielagus does not teach cooperatively ramping portions as claimed.

Section 103 Rejections

Applicant is unsure what grounds remain for obviousness rejections. It is believed that they depend on the same factual assertions that have already been addressed above as well as in previous responses. However, due to the uncertainty, Applicant will respond to the new arguments made in the “Response to Arguments” portion of the Office Action.

Prior Art Fails to Teach Three Components

It is asserted that there is “prior art” showing the three components--base, wearshoe, and upper clamping member--and that Applicant had argued to the contrary. For the record, Applicant had argued that *the Smith reference* does not have these three components, in specific response to the rejection of claim 20 as being anticipated by Smith. Applicant made no such argument about the prior art generally. It is understood that ring slicers generally have these three components.

But Smith is not a ring slicer, and if the “blade mount base 2” of Smith is a wearshoe and the “clamp plate 10” of Smith is a “base” as alleged, then there is no upper clamping member. The Office Action refers to annotated Figure 2, *but Figure 2 shows only three components, two of which the Office Action asserts are the wearshoe and base, and the remaining one of which is the knife*. So there is nothing to correspond to the claimed upper clamping member in Smith as Applicant had pointed out.

Mere Assertion That Adding Ramping Features to Smith Would Have Been Obvious

Applicant argued that it was “a mere assertion” in the prior Office Action that it would have been obvious to add cooperatively ramping features to Smith “for the purpose of firmly securing the knife.” This is because no factual or legal support was provided for the assertion. Now, the present Office Action cites Smith at Column 2, lines 32 - 37 as factual support, but it is contrary to the Examiner’s position. At column 2, lines 32 - 37, Smith explicitly teaches that the knife is “secure” when installed in the assembly as disclosed and, therefore, that there was no recognized need for any modifications for the asserted purpose.

More importantly, however, is that the premise of the rejections concerning claim 21 and claims dependent therefrom is that Bielagus teaches cooperatively ramping features. And as explained above in connection with **Sketch #7**, this is not true.

Lack of Suggestion to Combine References

The Office Action refers to “applicant’s argument that there is no suggestion to combine the references.” It is unclear to what, specifically, this statement is referring. If it is referring to Applicant’s arguments concerning the rejection of claim 9 based, in part, on the Gotham and Schneider references as appears to be indicated, Applicant made no such argument.

Schneider and Gotham

To the contrary, Applicant was quite dismissive of Schneider (U.S. Patent No. 5,983,769) and Gotham (U.S. Patent No. 4,000,860), pointing out that the Office Action merely cited them as having “threaded bolts,” whereas the claims recite “shoulder bolts.” It is, however, now asserted that Schneider (Figure 7) and Gotham (Figure 4) teach “threaded shoulder bolt[s].”

Of course, all bolts are threaded, but not all bolts are shoulder bolts. As discussed above in connection with the rejection of claim 9 for double patenting, and as indicated by comparison

of **Sketch #1** (shoulder bolt) and **Sketch #2** (ordinary bolt), a shoulder bolt must have a “shoulder portion.” The assertions that Schneider and Gotham disclose shoulder bolts is, like the similar assertions for Bielagus and Smith, are not accompanied by any supporting evidence.

Gotham

Gotham shows a washer being used with an ordinary bolt 82. It is well known that a washer does not transform an ordinary bolt into a shoulder bolt. Moreover, even if a washer is considered to function as a “shoulder portion” of the bolt 82, the alleged “shoulder portion” still fails as taught in Gotham to meet two express claim requirements: (1) it does not have a smaller diameter than the diameter of the head portion of the bolt (hereinafter “size requirement”); and (2) it does not extend through one part being joined (80) into the other part (42) (hereinafter “engagement requirement”)

The engagement requirement is illustrated in **Sketch #8**. For comparison, simplified **Sketch #9** shows the bolt 82 in Gotham, joining part 66 to part 42.

Even if the washer disclosed in Gotham were to be considered a “shoulder portion” of the bolt 82, it is apparent by comparing **Sketch #8** (meeting the engagement requirement) and **Sketch #9** that it does not meet either the size requirement or the engagement requirement.

Schneider

Figure 7 of Schneider shows a bolt 90 having a tapered or frustoconical head. Simplified **Sketch #10** corresponds to this Figure, with the bolt 90 joining parts 62 and 32.

It is understood in the art that the shoulder portion of a shoulder bolt is cylindrical and, therefore, the bolt 90 is not a shoulder bolt. However, even if an arbitrary portion of the frustoconical head is considered a “shoulder portion,” it is apparent by comparing **Sketch #8**

(meeting the engagement requirement) and Sketch #10 that it does not meet the engagement requirement.

Accordingly, neither Gotham nor Schneider teach shoulder bolts, or the use of shoulder bolts, and so both references are irrelevant to the patentability of claim 9 and the claims dependent therefrom.

Claim 35

Applicant had anticipated that the ground of rejection of claim 35 (referred to as claim 25 in the Office Action) related to “ranges” rather than “integral structure,” and so Applicant cited MPEP 2144.05(II)(B), which explains that ranges are not to be considered obvious where the variable being optimized was not recognized in the art as being “result effective.” Therefore, as pointed out before, a necessary condition for making the rejection was to show that the variable being optimized was recognized in the art as being “result effective.”

This showing was not made, and now the Office Action cites *In re Aller*, which misses the point. *In re Aller* is represented by MPEP 2144.05(II)(A), but as pointed out above, MPEP 2144.05(II)(B) is a condition on the application of MPEP 2144.05(II)(A), and is therefore a limitation on the application of *In re Aller*.

Additional Comment: Voluntary Amendment of Claim 21

Claim 21 has been voluntarily amended to clarify that the wearshoe and base relatively slide *on* one another. This makes explicit what was believed to be inherent in the term “ramping.” As can be discerned from the arguments above, this amendment is not required for overcoming any of the rejections.

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For the foregoing reasons as well as reasons given in previous correspondence, it is respectfully submitted that the case has been and continues to be in condition for allowance.

Respectfully submitted,


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